

# GRAS 43AA-S2

CCP Ear Simulator Kit According to IEC 60318-1 & -2



Connection: 0 V/CCP  
Volume: Complex  
Dyn range: 25 dB(A) to 150 dB  
ANSI: S3.7  
IEC: 60318-1 & -2

The GRAS 43AA-S2 CCP Ear Simulator Kit with TEDS is a complete test jig for acoustical measurements on telephone handsets and earphones. It includes an IEC 60318 Ear Simulator RA0039 which is individually calibrated according to the ITU-T Recommendation P.57 (08/96) "Series P: Telephone transmission quality, objective measuring apparatus: artificial ears."

The GRAS 43AA-S2 CCP Ear Simulator Kit according to IEC 60318-1 & -2 is a complete test jig for acoustical measurements on telephone handsets and earphones in accordance with:

- IEC60318-1 & -2 Electroacoustics – Simulators of human head and ear – Part 1: Ear simulator for the calibration of supraaural earphones, 1998-07
- ITU-T Recommendation P.57 (08/96) Series P: Telephone transmission Quality, Objective measuring apparatus: Artificial Ears

It consists of the following components:

- IEC 60318-1 & -2 [GRAS RA0039 Ear Simulator](#)
- [GRAS 40AO ½" Pressure Microphone](#)
- [GRAS 26CB ¼" Preamplifier](#)
- [GRAS RA0052 Test Jig](#)
- Mounting plates for circum-aural and supra-aural headphones

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

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

A version with a [GRAS 26AB](#) Preamplifier is available, [GRAS 43AA-S3](#).

## **TEDS Compatibility**

43AA-S2 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 ( $\pm 3$ dB)	mV/Pa	12
Set sensitivity @ 250 Hz ( $\pm 3$ dB)	dB re 1V/Pa	-38.5
Temperature range, operation	$^{\circ}\text{C}$ / $^{\circ}\text{F}$	- 30 to 60 / -22 to 140
Temperature coefficient @250 Hz	dB/ $^{\circ}\text{C}$ / dB/ $^{\circ}\text{F}$	- 0.01 / -0.006
Humidity range non condensing	% RH	0 to 80
ANSI standard		S3.7
ITU-T recommondations		P.57 Type 1
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Connector type		BNC
Weight	g / oz	1.65 / 58.202

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

## Included items

[GRAS AA0070](#)

3 m Microdot - BNC Cable

## Optional items

[GRAS RA0196](#)

Retrofit High-tension Spring Kit for RA0052 (for previous versions (before summer 2014))

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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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