

# GRAS 45AA

Telephone Test Head



IEC 60318 or IEC 60711 depending on configuration

The GRAS 45AA Telephone Test Head is a tailor-made fixture for testing the acoustic performance of telephone handsets in accordance with international standards and recommendations. The design of the GRAS 45AA combines precision with a robust construction to ensure stability and reproducible test results with a minimum of acoustic interference.

When used with [GRAS 43AD artificial ear](#) or [GRAS 43AE IEC 60711 ear simulator](#), and a [GRAS 44AA/GRAS 44AB mouth simulator](#), it can be set up for testing telephone handsets in accordance with ITU-T recommendations.

### Positioning of the mouth

Four different, detachable precision brackets are provided for mounting the Mouth Simulator according to the standardised positions shown in the table for speaking into a telephone. These positions are maintained to within an accuracy of 1 mm. Reference gauges are available for verifying this.

Speaking Position	Recommendation
LRGP	ITU-T Rec. P76
AEN	ITU-T Rec. P76
HATS	ITU-T P58
REF	OREM A

applied by adding a small mass to the measurement object.

### Anti-vibration Mounts

The GRAS 45AA stands on four anti-vibration mounts to isolate it from extraneous vibrations which could otherwise lead to spurious measurement results.

### Handset Alignment

The GRAS 45AA is provided with graduated guides and stops for aligning a telephone handset correctly in position over the Artificial Ear. Lateral guides are independently adjustable to cater for asymmetrical handsets.

Once aligned, an adjustable spring-loaded, padded clamp will hold the handset in position. As specified in some tests, an adjustable force may also be

IEC standard		Dep. on conf.
ITU-T recommondations		Dep. on conf.
CE/RoHS compliant/WEEE registered		Yes/Yes/Yes
Weight	g / oz	2300 / 81.13

## Included items

-	4 different brackets for selecting direction of the Mouth Simulator
---	---

## Optional items

Notice that for creating a complete order list you need to find relevant accessories for the chosen GRAS 44AA, 44AB, 43AD and 43AE products. See [www.gras.dk](http://www.gras.dk).

For test of the microphone in the handset

<a href="#">GRAS 44AA</a>	Mouth Simulator (with built-in amplifier)
<a href="#">GRAS 44AB</a>	Mouth Simulator

For test of the earpiece in the handset

<a href="#">GRAS 43AD</a>	Artificial Ear for Telephone Test Head (IEC 60318)
<a href="#">GRAS 43AE</a>	Ear Simulator (IEC 60318-4). Includes GRAS RA0056 Low-Leak Pinna Simulator & RA0057 High-Leak Pinna Simulator

For verifying the position (AEN & REF) of the Mouth Simulator

GRAS RA0141	Reference Gauges
-------------	------------------

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