

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





Connection: 200 V/LEMO Volume: Complex Dyn range: 25 dB(A) to 164 dB ANSI: S3.7 IEC: 60318-1 & -2 The GRAS 43AA Ear Simulator Kit 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.

GRAS Sound & Vibration A/S Skovlytoften 33, 2840 Holte, Denmark www.gras.dk



Technology

The GRAS 43AA 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 40AG ½" Pressure Microphone
- GRAS 26AC 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.

A prepolarized version is available, GRAS 43AA-S2.

A version with a GRAS 26AB. Preamplifier is available, GRAS 43AA-S3.



Specifications

GRAS 43AA Ear Simulator Kit According to IEC 60318-1 & -2

| 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 / \pm 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 |
| Coupler volume | mm³ | 0.4 ccm |
| 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 |
| ITU-T recommondations | | 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 |
| Specification Conditions | | GRAS Sound & Vibration reserves the right to change specifications and accessories without notice. |



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Ordering Info

Included

| GRAS RA0039 | IEC 318 Ear Simulator |
|-------------|--|
| GRAS 40AG | ½" Pressure Microphone, Wide Frequency |
| GRAS 26AC | ¼" Preamplifier |
| GRAS RA0052 | Test Jig |
| GRAS GR0339 | Circum-aural plate |

Optional

Power supply

| GRAS 12AK | Power Module |
|-----------|--------------|
|-----------|--------------|

Calibration source

| GRAS 42AA | Pistonphone |
|---------------|-----------------------------------|
| Miscellaneous | |
| GRAS RA0196 | High-tension springs (set of two) |

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We Make Microphones

Tradition

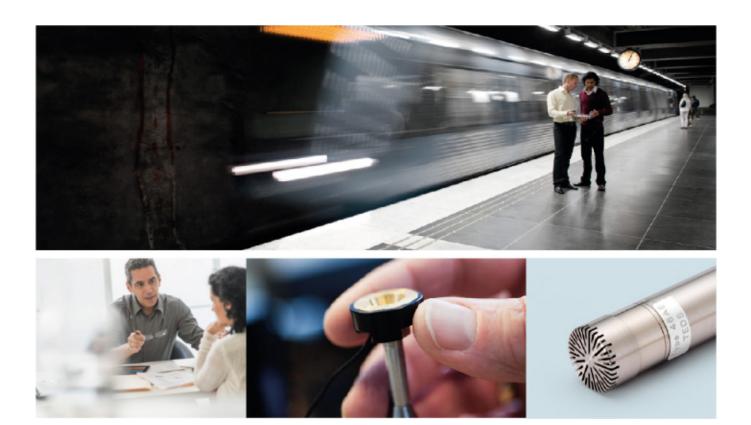
Since the establishment in 1994, GRAS has been 100% dedicated to developing and manufacturing high-quality measurement microphones and related acoustic equipment.

Innovation

We work with everybody with an interest in sound or noise within the fields of aerospace, automotive, audiology, consumer electronics, noise monitoring, building acoustics and telecommunications.

Quality

At GRAS we know that in order for you to trust your measurement results; signal quality, stability and robustness are essentials. We design and build them to perform under real life conditions – and beyond.



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