# **GRAS 43AH**

**CCP Ear Simulator for Production Testing** 





This ear simulator consists of the ITU-T Rec. P.57 Type 2 Ear Simulator and Type 3.2 Simplified Low-leak Pinna Simulator and is designed for making ITU-T standardized tests of telephone handsets, receivers and receiver/ loudspeaker-modules on the production line. Besides the RA0045-S1 Prepolarized Ear Simulator, the 26CB 1/4" Preamplifier and the RA0056 Low-leak Pinna Simulator 43AH includes a detachable front-plate that can be machined to make well-defined testing on various receiver related items. A calibration adapter to be used with 42AA/42AP Pistonphone is included.



43AH can also be delivered with customized front plates that will enable leakage-controlled testing according to your specific needs.

# **GRAS 43AI**

**CCP Ear Simulator for Production Testing ITU-T P57 3.2 HL** 



This ear simulator is similar to 43AH but comprises a Type 3.2 Simplified High-leak Pinna Simulator for testing leak tolerant receivers.

# **GRAS RA0038**

1/2" 2cc Coupler IEC 60318-5



An IEC 60318-5 (60126) 2cc coupler which complies with the requirements of:

- IEC 60318-5 (60126) IEC reference coupler for the measurement of hearing aids using earphones coupled to the ear by means of ear inserts.
- · ANSI S3.7-1995 American National Standard for Coupler Calibration of Earphones.

It is used with a 40AG 1/2" microphone and a 26AS preamplifier, which is a 1/4" very short preamplifier with 3 m integrated cable supplied with an adapter for 1/2" microphones. RA0038 is also part of the 43AB 2cc Coupler Kit.

# GRAS RA0075

**NBS 9-A 6cc Coupler** 



RA0075 is for testing earphones according to ANSI 3.7 -1995 and IEC 60318-3. It can be used with a 1" pressure microphone like 40EN, a 1/2" preamplifier like 26AK and various adapters, e.g., RA0073.

# GRAS RA0252

1/4" 0.4cc High-frequency Coupler



The coupler used in the 43BA kits is available separately i.e., without microphone, ear mould and tube adapters.

Specifications	RA0038	RA0075
Standards	IEC 60318-5 (60126) ANSI S3.7-1995	ANSI S3.7-1995, Coupler calibration of earphones



# **GRAS RA0113**

# 1" 2cc Coupler IEC 60318-5



RA0113 is a 2cc IEC 60318-5 (60126) coupler which uses a 1" microphone, like 40EN and a ½" preamplifier like 26AK supplied with e.g., RA0073 Adapter.

The microphone, without its grid, screws into the base of RA0113. In all other respects, this coupler is equivalent to RA0038.

It complies with the following international and national requirements for testing insert type hearing aids:

- IEC 60318-5 (60126) IEC reference Coupler for the measurement of hearing aids using earphones coupled to the ear by means of ear inserts.
- · ANSI S3.7-1995 American National Standard for Coupler Calibration of Earphones.

### **GRAS RA0039**

### Ear Simulator IEC 60318-1





RA0039 is an IEC 60318-1 (60318) Ear Simulator with an input impedance closely resembling that of an average human ear. When coupled to a sound source, its impedance will load the sound source similar to the loading caused by the human ear. It complies with the requirements of:

- IEC 60318-1 (60318) 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.

RA0039 is also part of the 43AA and 43AD Ear Simulator kits.

Specifications	RA0113	RA0039
Standards	IEC 60318-5 ANSI S3.7 (1995)	IEC 60318-1 (60318) / ITU-T Rec. P.57 (08/96)
Frequency Range	-	100 Hz – 8 kHz
Effective Volume	2 cc	-
Height	35 mm	19.8 mm
Diameter	22.4 mm	60 mm
Weight	50 g	137 g



