# GRAS AL0030

### Production Line Acoustic Test Chambers





Self Insertion Loss: >25 dB CCP Microphone set

GRAS AL0030-1, GRAS AL0030-2 and GRAS AL0030-3 are acoustical test chambers for production line testing of mobile devices such as cell phones, tablets,

Bluetooth® speakers, etc.



## Technology

#### Introduction

The GRAS AL0030-x Production Line Acoustic Test Chambers are an anechoic test chambers for acoustic production line testing of mobile devices, for example cell phones, tablets, bluetooth speaker systems and similarly sized portable acoustic devices. It provides a flexible platform that can be configured to suit specific requirements.

#### Design

It is built from medium density fiber board lined with acoustic damping material. A large opening at the back of the chamber allows easy access to the chamber for configuring the test setup. The chamber has shock and vibration absorbing feet that prevent vibration from the outside from influencing the measurements.

It has a drawer with multi-adjustable holders for easy and safe mounting and removal of the device under test (DUT). It can hold small and medium sized portable devices up to (WxDxH)  $300 \times 200 \times 228$  mm ( $12 \times 8 \times 9$ ).

The test chamber has four fixing points for microphones and sound source, two at the top and two at the bottom panel. Holders for a total of four microphones and/or sound sources can be mounted at these fixing points. Additionally, a microphone can be attached to the drawer.

A connector panel that can be configured with 8 or 10 (depending on drawer size) user-specified connectors provides interface to external instruments. You find more information in the "Brochure", also available in the "Resources".

## A Flexible and Configurable Test Platform

AL0030 provides a flexible test platform that can be configured to suit specific needs.



The basic configuration starts with selecting the chamber between the 3 versions:

- AL0030-1 with a small drawer for maximum DUT dimensions (WxDxH) 30 x 20 x 6,6 cm
- AL0030-2 with large drawer with fixture in upper part of the test space and maximum DUT dimensions (WxDxH) 30 x 20 x 22,8 cm
- AL0030-3 with large drawer with fixture in lower part of the test space and maximum DUT dimensions (WxDxH) 30 x 20 x 22,8 cm

All versions include user selectable accessories for immediate acoustic testing.

As standard the AL0030 comes with a basic suite of accessories needed for audio response testing. The following are included:

- The Acoustic Test Chamber
- · Choice of one microphone set
- · Choice of a set of DUT holders
- Choice of one microphone holder
- One connector panel drawer: select between standard or large
- One cable for the microphone set

Additionally, the test chamber can be fitted with a sound source and artificial ear.

The connector plate can also be ordered blind for your own adaptation.

Included and optional accessories for AL0030 are listed under the tab Ordering info.

You can find more information in the downloable <u>Brochure</u>, available as well under "Resources".



## Technology

The configuration of a test box is done together with your GRAS sales representative.

If you should have have needs that are not covered by these options we are open to customize it to suit your specific needs. Contact (your local) GRAS (representative) to initiate a customization process.

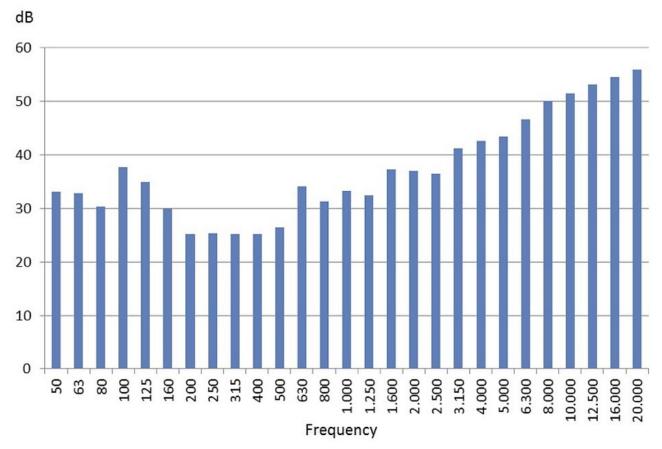
### **Quality and warranty**

The Acoustic Test Chamber is covered by a two year warranty. For cables and accessories, the warranty for the specific item is valid.



## Specifications

Dynamic range lower limit with GRAS preamplifier	dB(A)	<30
Connector type		BNC
Weight	g / oz	39 kg



Self Insertion Loss measured in reverberant conditions

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



### **Test camber versions**

GRAS AL0030-1	Acoustic Test Chamber, small drawer
GRAS AL0030-2	Acoustic Test Chamber, large drawer w high mounting
GRAS AL0030-3	Acoustic Test Chamber, large drawer w low mounting

### **Included items**

GRAS AA0079	Microdot-BNC cable, 1 m	

### **Included Items - user selections**

#### **Reference Microphone**

GRAS 46BL	1/4" CCP Pressure Standard Microphone Set, High Sensitivity
GRAS 46BD	1/4" CCP Pressure Standard Microphone Set
GRAS 46BE	1/4" CCP Free-field Standard Microphone Set

### **Microphone Holder**

GRAS OP0040	Microphone Holder for top/bottom mounting
GRAS 0P0041	Microphone Holder for mounting in the drawer

#### **DUT** holders—one set of 4

GRAS OP0030	DUT Holder, low placement, small
GRAS 0P0031	DUT Holder, low placement, large
GRAS OP0032	DUT Holder, top placement



#### **Connector Panel**

GRAS 0P0050	Connector panel for AL0030—Standard drawer with space for 8 selectable connectors
GRAS 0P0050-S2	Connector panel for AL0030-S2—Large drawer with space for 10 selectable connectors

#### **Selectable Connector-panel Connector Options**

AE2197	BNC Socket, Female
AE2198	RCA Socket, Female
AE2199	XLR Connector 3 pol, Female
AE2200	Loudspeaker connector plug, SpeakON, 4 way
AE2201	S-VHS, Female, to S-VHS, Female
AE2202	¼ jack, 3 pol
AE2203	D-sub 9 pin
AE2204	HDMI-Connector
AE2205	Ethernet connector
AE2207	USB-B adapter

NOTE: Please contact <a href="mailto:support@GRASacoustics.com">support@GRASacoustics.com</a> for help configuing the Production Line Acoustic Test Chamber.

## **Optional Items - not included**

#### **Sound Source**

GRAS 44AA	Mouth Simulator according to ITU-T Rec. P51 with built-in power amplifier
GRAS 44AB	Mouth Simulator according to ITU-T Rec. P51

#### **Sound Source Holder**



## Ordering info

GRAS OP0045	Sound Source Holder with swivel head
GRAS OP0046	Sound Source Holder with swiwel head, heavy duty version

#### **Ear Simulator**

GRAS 43AH	CCP Ear Simulator for Production Testing Based on ITU-T Rec. P57 Type 3.2 Low-leak
GRAS 43AI	CCP Ear Simulator for Production Testing Based on ITU-T Rec. P57 Type 3.2 High-leak

#### **Cables**

GRAS AA0032	BNC-BNC Cable, 0.5 m
GRAS AA0033	BNC-BNC Cable, 1 m
GRAS AA0034	BNC-BNC Cable, 2 m
GRAS AA0035	BNC-BNC Cable, 3 m
<u>GRAS AA0070</u>	Microdot-BNC cable, 3 m

#### **Miscellaneous**

GRAS 0P0061	Set of 2 drawer latches
GRAS 12BA, -BE or -BB	1-, 2- or -4-Channel CCP Power Modules with TEDS Support
GRAS 12AL	1-Channel CCP Power Module with A-weighting filter
GRAS 12AX	4-Channel CCP Power Module with Gain
GRAS 42AP	Intelligent Pistonphone, Class 0
GRAS 42AG	Multifunction Sound Calibrator, Class 1

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 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 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 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 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

GRAS

An Axiometrix Solutions Brand

grasacoustics.com