Acoustic Couplers & Ear Simulators

Whether testing an earphone, hearing aid or audiometer, there is a Larson Davis coupler to satisfy your requirements. Due to the rugged, stainless steel construction and product quality you can rely on your Larson Davis coupler or ear simulator to work dependably for many years.

Applications

- Audiometer Calibration
- Production Testing
- Hearing Aid Test
- R & D

AEC100 NBS 9A 6 cc Coupler for 1 inch microphone

A rugged artificial ear for testing supra-aural earphones

The AEC100 Coupler is a precision acoustic coupler designed primarily for the calibration and test of supra-aural earphones used in audiometry. It allows accurate and repeatable measurements within its frequency response (up to 8 kHz). It may also be used for production testing where correlation between the coupler and real ear response is not a requisite. For use with either the 377A15 pre-polarized or 2575 externally polarized, 1 inch microphone.

AEC202 2 cc Coupler for 1/2 inch microphone

Used for Insert Type Hearing Aids and Earphones

IEC60126, IEC60318-5, ANSI S3.7

AEC203 2 cc Coupler for 1 inch microphone

Used for Insert Type Hearing Aids and Earphones

IEC60126, IEC60318-5, ANSI S3.7 2cc

AEC304 Occluded-Ear Simulator

For the measurement of earphones coupled to the ear by ear inserts

IEC60318-4, IEC60711:1981

(includes 1/2 inch 12.5mV/Pa matched microphone)

AEC201-A IEC 60318-1 Ear Simulator

A new Ear Simulator for testing a variety of earphones using the latest standards

AEC201-A is a new ear simulator designed to be used with both supra-aural and circumaural earphone at frequencies up to 16000 Hz. Its design meets the requirements of IEC 60318-1:2009 Edition 2 and ANSI S3.7 section 5.4 which make it compatible with earphones like TDH 39, TDH 49, TDH 50, HDA200 and Koss HV/1A. The AEC201-A is supplied with the 377B13 microphone and a Type 1 adapter plate. The optional AEC201-2 is a Type 2 adapter plate for testing earphones such as Koss HV/1A. Weights, accessories and the AEC201-A are all packaged in a durable weather-tight case.

AMC493B Artificial Mastoid

Use this innovative transducer for bone vibrator testing

The AMC493B artificial mastoid is a precision mechanical coupler used to calibrate bone conduction hearing aids and audiometer bone vibrators.

The AMC493B is cost effective and simple to use. Its patented design converts the vibrator force output to an acoustic signal measured with the system's sound level meter. It is used with the AEC100 coupler or AEC201-A Ear Simulator to perform bone vibrator tests.

Which coupler should I use for calibrating Audiometers?

Head phone	AEC100	AEC201-A	AEC202	AEC203	AEC304	RETSPL	Notes
Ear Tone ER-3A/5A			✓ ✓	✓ ✓	✓ (occluded)	ISO 389-2 ANSI S3.6	
Koss HV/1A		✓ ✓				ISO 389-5 ANSI S3.6	Use 9-10 N weight and optional AEC201-2
Telephonics TDH-39	✓ ✓	✓ ✓				ISO 389-1 ANSI S3.6	Use 4-5 N weight
Telephonics TDH-49	✓	✓ ✓				ISO 389-1 ANSI S3.6	Use 4-5 N weight
Telephonics TDH-50	✓	✓ ✓				ISO 389-1 ANSI S3.6	Use 4-5 N weight
Sennheiser HDA200		✓ ✓ ✓				ISO 389-5 ISO 389-8 ANSI S3.6	Use 9-10 N weight and type 1 adapter plate
Sennheiser HDA280	✓	✓ ✓				ISO 389-1 ANSI S3.6 Sennheiser	Use 4-5 N weight
Sennheiser HDA300	✓	✓				Sennheiser	Use 4-5 N weight
Beyer DT-48	✓	✓ ✓				ISO 389-1 ANSI S3.6	Use 4-5 N weight
Interacoustics DD45	✓	✓				Interacoustics	Use 4-5 N weight
Radio Ear B-71	✓ ✓	✓ ✓				ISO 389-3 ANSI S3.6	Use 4-5 N weight and optional AMC493B weighting mass

AEC202 Configurations

Specifications

Coupler	AEC100	AEC201-A	AEC202	AEC203	AEC304
Description	NBS 9A (6 cc) Coupler	Ear Simulator	1/2 in. 2cc Coupler	1 in. 2cc Coupler	IEC711 Ear Simulator
Standards Compliance	IEC 60318-3:1998 ANSI S3.7-1995	IEC 60318-1:2009 IEC 60318-2:1998 ANSI S3.7-1995 Section 5.4	IEC 60318-5:2006 ANSI S3.7-1995	IEC 60318-5:2006 ANSI S3.7-1995	IEC 60318-4:2010
CE Compliant	—	Yes	Yes	Yes	Yes
ANSI S3.6 Test Configuration	—	—	HA-1, HA-2	HA-2	—
Weight	5.5 lb (2.5 kg)	3.2 lb (1.4 kg)	2.7 oz (77.5 gr)	1.7 oz (49.0 gr)	3.3 oz (94.8 gr)
Height	2.5 in. (65 mm) without mass and retainer	2.0 in. (50.9 mm) without mass and retainer	1.62 in. (4.12 cm)	1.55 in. (3.94 cm)	1.5 in. (3.81 cm)
Diameter	3.2 in. (82 mm)	3.2 in. (82 mm)	0.98 in. (2.48 cm)	0.98 in. (2.48 cm)	0.94 in. (2.37 cm)
Effective Volume	6 cc	—	2 cc	2 cc	—
Microphone	1 in. 377A15 or LD 2575 (not included)	1/2 in. 377B13 (included)	1/2 in. 377B13 or 1/2 in. 377B11 (not included)	1 in. 377A15 or LD 2575 (not included)	1/2 in. 377B13 (included)
Included Accessories	Vibration isolation pillow	Vibration isolation pillow	0.035 in. hex key, acoustic tubing #13 thick	acoustic tubing #13 thick	—
Optional Accessories	377A15 microphone 2575 microphone CAL250 Calibrator AMC493B Artificial Mastoid	AEC201-2 Type 2 adapter plate for circumaural earphones AMC493B Artificial Mastoid	377B13 or 377B11 microphone	377A15 microphone 2575 microphone CAL250 Calibrator	CAL250 Calibrator
Additional Features	—	377B13 is removable	Earmold substitute for BTE hearing aids, cup for insert headphones and ITE hearing aids	Can be used with AEC100 to share 1 inch microphone	Can be calibrated using CAL250 by removing top cone and mesh
Applications	—	—	IIC, CIC, ITC, ITE, RIC, BTE	BTE	ITC, ITE, RIC

HA-1	Without Ear Mold Substitute
HA-2	With Ear Mold Substitute

IIC	Invisible In Canal
CIC	Completely In Canal
ITC	In The Canal
ITE	In The Ear
RIC	Receiver In Canal
BTE	Behind The Ear

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For environmental noise monitoring and building acoustics, **Larson Davis** offers a full line of instruments, accessories and software. For personal noise and vibration exposure monitoring, Larson Davis complements this with sound level meters, personal noise dosimeters, human vibration meters, audiometric calibration systems and hearing conservation programs.

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