

**Onsokku**

Product  
Catalog

# Audio Tester

The audio tester automatically measures the characteristics of audio equipment such as speakers and microphones, displays the characteristics, judges OK / NG, and performs tallying.

It can be used in line inspection, development department, quality assurance department, production management department, etc.

## OT-1003 Audio tester

Model OT-1003 can perform most of the inspections required for audio equipment such as speakers and microphones.

After creating the reference data for the judgment, the measurement is performed with one button and the operation is very easy.

By using a dedicated dummy head (optionally), you can also measure the frequency characteristics of high-resolution Earphones and headphones. (Complies with RC8140B-1 standard) If there is high-frequency correction characteristic data for a dummy head made by another company, it is possible to correct the measured value.

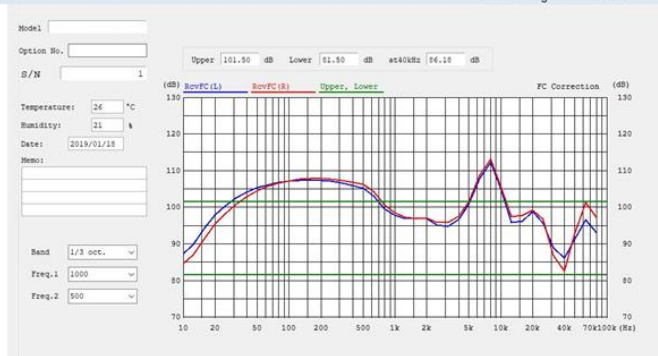
By using the Bluetooth option (OP-1004), measurement and judgment of Bluetooth earphones / headphones Can be performed.

### Target Product

- Stereo headphone
- Stereo handset (Stereo headphone + Microphone)
- Handset
- Receiver (Speaker) 2 (At the same time) or 1
- Microphone, Directional microphone

### Measurement item

Sensitivity, Frequency characteristic, Polarity, L-R-Polarity, Harmonic distortion, Rub & Buzz, Fo  
Frequency range: 10Hz to 90kHz  
Sweep time: 0.5 to 10sec



## OAT-900 / OAT-900A Audio tester

These audio tester can perform most of the inspections required for audio equipment such as speakers and microphones

### Target Product

- Stereo headphone
- Stereo handset (Stereo headphone + Microphone)
- Handset
- Receiver (speaker) 2 (At the same time) or 1
- Microphone, Directional microphone

### Measurement item

Sensitivity, Frequency characteristic, Impedance, Polarity, L-R-Polarity, Harmonic distortion, Rub & Buzz, Fo

Frequency range: 20Hz to 20kHz (OAT-900)

Frequency range: 10Hz to 45kHz (OAT-900A)

Sweep time: 0.5 to 10sec



## OAT-706 / OAT-709A Audio tester

These audio tester can perform most of the inspections required for audio equipment such as speakers and microphones.  
The measured data is stored in the attached PC. The superimposed display of the measured characteristics is also possible.

### Measurement item

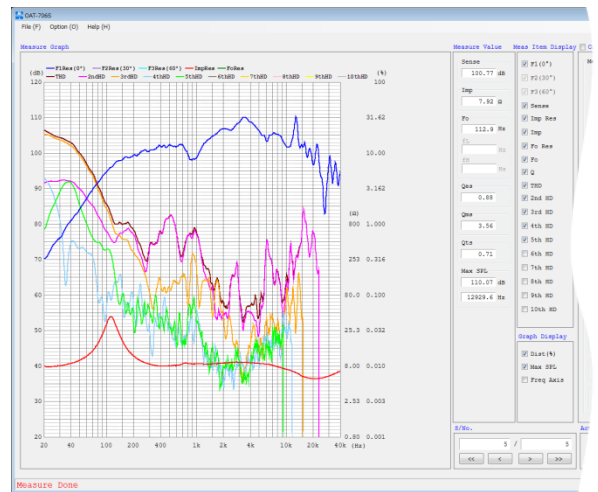
【Speaker measurement】

Sensitivity, Impedance (1 point), Fo, Q value (Qes, Qms, Qts)  
Frequency characteristic [F1(0degrees), F2(30degrees), F3(60degrees)]  
Impedance frequency characteristic, Distortion characteristic (The total 2nd to 10th and total harmonic distortion.)  
Frequency range: 20Hz to 40kHz (OAT-706)  
Frequency range: 20Hz to 40kHz (OAT-709 When using 1/2inch microphone)  
200Hz to 100kHz (OAT-709 When using 1/4inch microphone)  
Sweep time: 1 to 100sec

【Microphone measurement】

Sensitivity, F1(0° in an axis), Frequency response, F2 angle (Example: an angle of 90°) frequency response, F3 angle (Example: an angle of 180°) frequency response, F1-F2 five Points of frequency sensitivity difference, F1-F3 five points frequency Sensitivity difference.  
Frequency range: 20Hz to 40kHz (OAT-706, OAT-709)  
Sweep time: 1 to 100sec

OAT-706 comes with 1/2inch microphone.  
OAT-709 comes with 1/2inch microphone and 1/4inch microphone.



## OAT-901 Audio tester

Model OAT-901 is audio tester generating a signal and measurement the captured the signal by digital processing.  
Power amplifier unit can be selected from 2W type, 20W type and 100W type.

### Target product

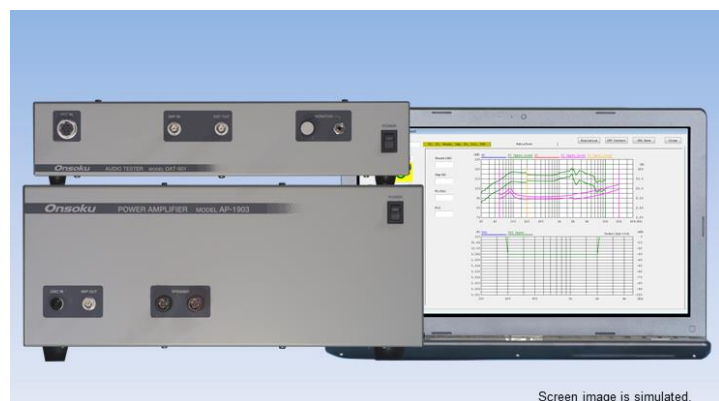
Speaker

### Measurement item

Sensitivity, frequency characteristic, Impedance  
frequency characteristic, Impedance (1 point), Fo,  
Polarity,  
Total harmonic distortion, Rub&Buzz  
Frequency range : 20Hz to 40kHz  
Sweep time : 0.5 to 10secs  
Comes with 1/2inch microphone

### Selectable power amplifier

- AP-1903 100W  
Load : 2Ω or more  
Drive voltage : 1V to 30V
- AP-1902 20W  
Load : 2Ω or more  
Drive voltage : 1V to 13V
- AP-1904 2W  
Load : 4Ω or more  
Drive voltage : 0.5V to 4V



Screen image is simulated.

# Temperature Meter

“Voice coil Temperature Meter” of Onsoku will electrically measure the temperature of the wire itself. Therefore, it is possible to measure the electric wire original temperature without being affected by the thermal resistance of such an insulating coating and the bobbin material.

\* When measuring the temperature of the voice coil using a temperature sensor of contact type, Thermal resistance of the insulating coating and adhesive, and measurement error of several tens degrees is caused by heat radiation to the bobbin and the outsider air.

## OMT-205A / OMT-205AH Voice Coil Temperature Meter

These temperature meter measure the temperature of a speaker voice coil (copper or aluminum) during operation, and indicates the resultant temperature and input voltage on two digital meters simultaneously. Measurement can follow the signal source of sine wave, white noise, pink noise or music source in the frequency range of 20Hz to 20kHz. Signal sources and a power amplifier are not built into the unit.

OMT-205AH can also use BTL power amplifier.

Optional unit: Data recorder Model OT-1009

### Specifications

Number of channel: 1

Measurement temperature range: 0°C to 400°C

Speaker DC resistance range: 1.5Ω to 40Ω

Maximum input voltage:

90Vrms sine wave (OMT-205A)

283Vrms sine wave (OMT-205AH)

(If the signal is a noise source, the power amplifier should not clip at the peak value.)

Maximum input power: 1kW peak (OMT-205A)

10kW peak (OMT-205AH)

Response selector: 5positions



## OMT-405 Voice Coil Temperature Meter

Model OMT-405 measures the voice coil temperature of at most 5speakers units. Signal source corresponds to all kinds of signals in the reach of the 20Hz to 20kHz.

(sine wave, white noise, pink noise, standard load test noise and music source)

A measurement item indicates a chart and the value to time between the temperature and the input voltage.

This model can also use BTL power amplifier

### Specifications

Number of channel: 5

Measurement temperature range: -40°C to 400°C

Speaker DC resistance range: 1.5Ω to 40Ω

Maximum input voltage: 70V peak

(If the signal is a noise source, the power amplifier should not clip at the peak value.)

Maximum input power: 400W peak

Response selector:

2positions to change low-pass filter cut off frequency



## OMT-404 DC Voice Coil Temperature Meter

Model OMT-404 is a temperature meter to measure the temperature of voice coil of the speaker unit applying the DC voltage. This model displays temperature, DC resistance, and input voltage value for measurement result of the voice coil at the same time with digital. And also the measurement value is stored in the USB flash drive at constant time interval.

Notice : DC power supply are not included thi model.

### Specifications

Measurement temperature range: 0°C to 400°C

(Measurement display up to 999°C)

DC resistance of the speaker: 2Ω to 35Ω

Maximum input current: 50ADC

Maximum input voltage: 100VDC



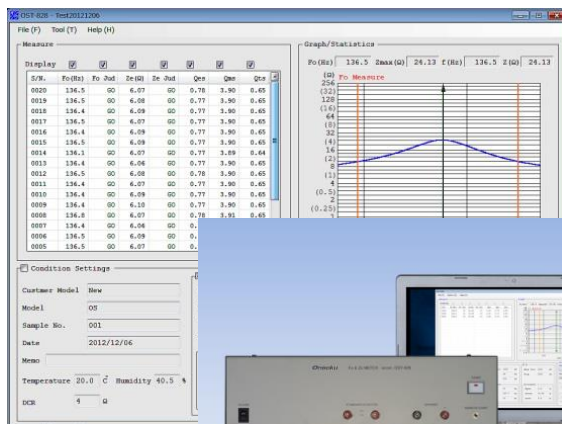
# Speaker Fo & Ze Cone Paper Fo Meter

## OST-828 Fo & Ze Meter

Model OST-828 measures Fo and Ze of the speaker by the constant voltage anodizing. This model collects the statistics with plural measurements and calculates and does the standard judgment.

### Specifications

- Number of channel: 5
- Measurement temperature range: -40°C to 400°C
- Speaker DC resistance range: 1.5Ω to 40Ω
- Maximum input voltage: 70V peak  
(If the signal is a noise source, the power amplifier should not clip at the peak value.)
- Maximum input power: 400W peak
- Response selector:  
2 positions to change low-pass filter cut off frequency

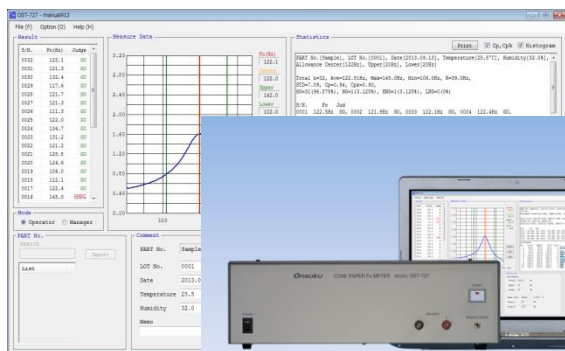


## OST-727 Cone Paper Fo Meter

Model OST-727 measures the Fo of the cone paper. This model measures displacement of a cone paper excited by a drive speaker with a displacement sensor, and sets frequency at the displacement peak value to Fo according to direct method. This equipment judges a cone paper to be OK or NG about Fo frequency by setting of an upper - lower allowance.

### Specifications

- Frequency range: 10Hz to 10kHz
- Frequency resolution: 2048 points of logarithm (between start frequency and stop frequency)
- Accuracy of frequency: Within 0.1%
- Distortion: Within 3%
- Output voltage: 100mV to 4000mV (1mV step)
- Constant voltage drive (impedance of the drive speaker 4Ω or more)
- Output voltage accuracy: ±(3% + 0.02V)
- Sweep frequency range: 2 times of the ± allowance or manual setting
- Example In the case of Fo = 200Hz, Allowance ±30Hz  
Sweep between 140Hz to 260Hz
- Sensor input: AC 3.5Vrms
- Sensor input range: Sensor input range is set to any among 3 ranges (1 time, 5 times and 25 times) automatically.
- Sensor locative-calls voltage: ±5VDC
- Measurement time: about 4sec
- Measurement accuracy: ±(3% + 1Hz) at Q = 1.6 or more
- Judgement allowance setup: Centering frequency 10Hz to 10kHz (0.1Hz step)  
Upper and lower limit allowance setup: ±1.0Hz to 20kHz (0.1Hz step)
- Measurement result:  
Serial number, Fo (measured value), Judgment (GO, LO, Hi)
- Statistics output:  
Setting conditions (Product number, Lot, Measurement date, Temperature and relative humidity, Memorandum, Centering Fo, Upper and lower limit allowance) The number of measurement



Sensor Block



# Speaker Load Test Timer

## ODR-639 Load test data logger

Model ODR-639 measure a voltage, current and electricity of audio signal input to the speaker during load testing and record up to 100h.

Will be shown the effective value and peak value of the entire recorded waveform.

Recorded data can be read out at a later date and used as is for voice confirmation and analysis of measurement data.

### Specifications

Number of channel: 6 (voltage and current)

Recording time: Maximum 100 hours

(Up to 50hours when frequency analysis 1/12oct. Is selected)

Select the recording interval from 1sec, 10sec, 1min and 1hour

Voltage range: 30Vpeak (resolution 1mV)

Current range: 10Apeak (resolution 1mA)

Record value: RMS, peak value (voltage, current and power)

Voice recording:

1record channel of the voice in WAV format (1sec mode only)

(Records the sound of the user specified channel or the entire 6 channels.)

1/3oct. frequency analysis: After recording, the results of the

analysis in 1sec increments will be shown to back to the past.

1/3oct. frequency analysis range: 20Hz to 20kHz

Voltmeter input impedance: 20k $\Omega$

Current sensor: Penetration-type

Sampling frequency: 48kHz

Sampling Resolution: 16bit

### Option unit

AP-1639 Temperature measurement unit

Changes in voice coil temperature are also recorded

At the same time.



There is also an Model ODR-641 with 2measurement recording speakers.

Model ODR-641 can record the change of voice coil temperature at the same time.

## OT-1002 10 channels speaker load test timer

Model OT-1002 is a timer device for speaker load test. Input signal ON/OFF can be set for each channel. In addition, voice coil disconnection detection, signal supply stop, and disconnection time can be recorded. The timer time is set from the control PC. Same setting for all channels simultaneous operation or individual setting individual operation can be set. After the voice coil disconnection is detected, the input signal and timer are stopped after the preset interval timer has elapsed.

If disconnection detection returns within the interval timer time, the timer operation continues. Up to 5units (50channels) can be added in combination with optional products. The power amplifier and signal source oscillator are not included, so please use the noise oscillator Model OG-530, sine wave oscillator, etc.

### Specifications (per 1 equipment)

Number of channels : 10

Frequency range : 10Hz to 20kHz  $\pm 0.5$ dB

Input impedance : More than 47k $\Omega$

Maximum input voltage :  $\pm 10$ Vpeak

Test speaker : 2 $\Omega$  to 16 $\Omega$

Input connector : BNC receptacle

Output connector : XLR receptacle  
(Attached on the back)

Maximum displayed time : 9999h 59min 59sec

Brake interval timer setting time : 0 to 999sec  
1sec step



## OST-806 Programmable step up timer

Model OST-806 is step-up timer that can change the signal level stepwise with programmed setting.. At the same time, the step number, voltage and time when the speaker is disconnected will appear on the display.

### Specifications

Timer time display and setting: 9999hour 59min 59secs  
 Maximum step range: 15times  
 Step interval: Maximum 99h  
 Step level: JIS C5063 standard sequence step  
     Constant voltage step  
     Constant power step  
     Constant decibel step  
     User settings (4 set configurable)



## OST-824 Programmable timer

Model OST-824 is a timer that can preset the ON time and OFF time of the alternating current signal and the number of times.

Since it is equipped with a general-purpose timer relay, it can also be used for ON/OFF testing of large loads. This programmable timer can be used for durability test and load test.

### Specifications

ON/OFF time mode selecting: 99hour 59min 59sec mode  
     or 999sec 999ms mode  
 ON time setting: 99hour 59min 59sec or 999sec 999ms  
     ON number of times, up to 10times  
 OFF time setting: 99hour 59min 59sec or 999sec 999ms  
     OFF number of times, up to 10times  
 ON/OFF number of times setting: 999999times  
 Frequency range: 10Hz to 20kHz  $\pm 0.5$ dB  
 Maximum input and output voltage:  $\pm 10$ Vpeak  
 Input and output gain: 0dB (gain x1)



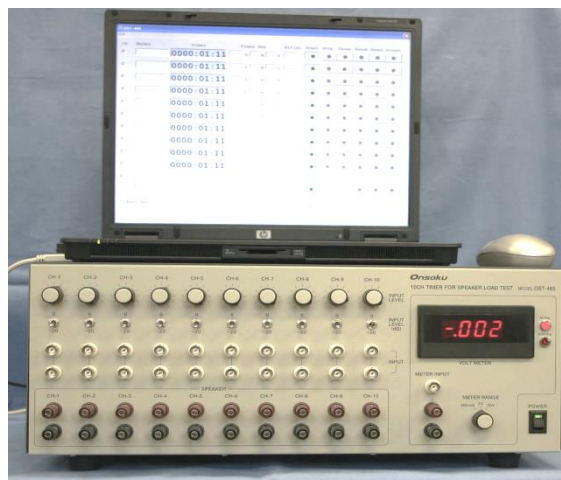
## OST-465 10 channels speaker load test timer

Model OT-1002 is a timer device for speaker load test. Input signal ON/OFF can be set for each channel. In addition, voice coil disconnection detection, signal supply stop, and disconnection time can be recorded. The timer time is set from the control PC. Same setting for all channels simultaneous operation or individual setting individual operation can be set. After the voice coil disconnection is detected, the input signal and timer are stopped after the preset interval timer has elapsed. If disconnection detection returns within the interval timer time, the timer operation continues. Up to 10units (100channels) can be added in combination with optional products.

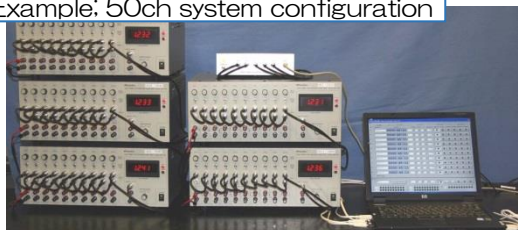
The power amplifier and signal source oscillator are not included, so please use the noise oscillator Model OG-530, sine wave oscillator, etc.

### Specifications (per 1 equipment)

Number of channels: 10  
 Maximum output: 2W  
     (minimum load impedance : 4 $\Omega$  2.8Vrms)  
 Maximum voltage: 6Vrms  
 Peak voltage: 24Vp-p (18 $\Omega$  or more load impedance)  
 Maximum speaker impedance: 40 $\Omega$   
 Timer display time: 1000h 59min 59sec  
 Break interval timer setting time: 0 to 300sec (1sec step)



### Example: 50ch system configuration



# Oscillator

Onsoku has a lineup of oscillator that can meet a variety of applications.

Model name	OG-422A	OG-440	OG-484	OG-442	OG-430A	OG-431A	OT-1002	OG-438L	OG-438AL	OG-439A	
Frequency Range	10Hz to 20kHz							20Hz to 20kHz	10Hz to 20kHz	10Hz to 20kHz	
Maximum output power	20W		50W (1.5Ω to 8Ω load)	150W (1Ω to 8Ω load)	20W		2W	3Vrms 1W (8Ω load impedance)		Line output : 1Vrms (load is open) Power amplifier output (8Ω load impedance intermittent operation at the time imel)	
Load Impedance	2Ω or more		1.5Ω or more	1Ω, 2Ω, 4Ω, 8Ω, according to the load switching	2Ω or more		4Ω or more	4Ω or more			
Manual Sweep	Endless rotation frequency dial							Variable frequency dial	Endless rotation frequency dial		
Auto Sweep Mode	-	0.5 to 10 secs		-	-	1 to 20 secs		1 to 5 secs		-	
Judgement of polarity	-	-	-	-	○	○	○	-	-	-	
Dimension (mm) Not include protrusions	250 x 120 x 200	342 x 142 x 330	352 x 152 x 370	400 x 150 x 410	332 x 118 x 272		250 x 130 x 160		252 x 178 x 170		
Mass	5.6kg	7.5kg	15kg	18kg	7.7kg		3.5kg		2.7kg		
Function	-	-	It switches the output voltage in 3stages	-	-	-	-	Turn back sweep	Repeat Sweep	-	

# Noise Oscillator

**OG-530** Noise oscillator



Model OG-530 is possible to simultaneously output 4types of signals white noise, pink noise, JIS [DIN, IEC, EIAJ (SN-1)] And EIAJ (SN-2). An expansion panel is provided on the back side, so it is Possible to add filters of other test standards. Crest factor 2 ON/OFF and timer ON/OFF are attached.

**OG-532** Noise oscillator



Model OG-532 outputs EIA-426-B standard noise.

**OG-536** Noise oscillator



Model OG-536 outputs pink noise and IEC60268-1 (wide band noise) simultaneously.

# Tone Burst Oscillator

**OG-636** Tone burst oscillator



Model OG-636 is a programmable tone burst oscillator for audio equipment testing. ON/OFF wave number, repeat count, waveform selection (sine wave, square wave) frequency can be set freely.

**Specifications**  
 Burst ON/OFF wave number: 1 to 9999  
 ON/OFF repeat count: 1 to 9999999 0 is continuous  
 Frequency: 20Hz to 2kHz  
 Output voltage: 2Vrms



# Partial Disconnection Checker Speaker Polarity Checker

Onsoku have a group of inspection devices that are indispensable for speaker products.

## ODC-489 Partial disconnection checker

Model ODC-489 inspect the partial disconnection state such as the partial disconnection in the voice coil and the entanglement defect which have been difficult until now.

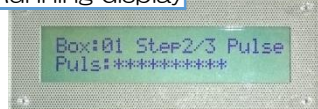
Japanese Patent No. 5756437 (registration data June 5, 2015)

An electrical stress is applied to the object to be measured and failure are detected from changes in the electrical characteristics before and after that.

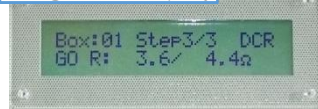
The partial disconnection state is detected by storing the state of a good product in advance and comparing the characteristics that change transiently with that of a good product.

It can also be used as a DCR checker as an additional function. (With temperature compensation, but ambient temperature must be entered from the key switch.)

Running display



Judgment display



### Specifications

Measurement range: 2Ω to 200Ω (Display resolution 0.1Ω)

Measuring current: 5mA

Measurement time: 0.5sec

## OPC-288 Speaker polarity checker

Model OPC-288 inspects and determines the polarity of the speaker unit.

Judgment result is displayed in +/- judgment display by LED in a short time of about 0.1sec and can be known by buzzer sound when the buzzer switch is ON.

An external signal can be input using the selector switch.

### Specifications

Polarity (LED display) : + (green) - (red)

Judgement Time: 0.2 secs

Maximum Output: 10Vp-p (no load)

Polarity checking microphone : AP-1291 (accessory)



## OPC-488 Speaker polarity checker with tweeter checking

Model OPC-488 checks the polarity of the speaker unit and the disconnection of the tweeter of the composite speaker, and the judgment result is displayed in red and green LED in a short time of about 0.1sec. An external signal can be input using the selector switch.

### Specifications

Polarity (LED display) : + (green) - (red)

Tweeter disconnection (LED display) : GO (green) NG (red)

Judgement Time: 0.2 secs

Maximum Output: 10Vp-p (no load)

Polarity checking microphone : AP-1291 (accessory)



## Filter

This filter has a wider range of use due to the addition of a noise signal source.

### OFV-552 Variable band noise generator

Model OFV-552 is a variable filter that can set various cutoff frequencies and slopes of high-pass filter and low-pass filter.

Furthermore, since white noise and pink noise are built in as signal sources, you can freely create band noise.

#### Specifications

Signal sources: white noise, pink noise, external input

Filter: high-pass filter and low-pass filter

Filter characteristics: Butterworth

Slope: -6, -12, -18, -24dB/oct (4 types)

Cut-off frequency range: 20Hz to 20kHz

Cut-off frequency: (0.1Hz Step) 20Hz to 99.9Hz

(1Hz Step) 20Hz to 999Hz

(10Hz Step) 20Hz to 9990Hz

(100Hz Step) 100Hz to 20000Hz

Clipper circuit: Built-in, settable to ON/OFF



## Sound Pressure Meter

These sound pressure meter that has been highly evaluated for its reliability over many years.

### OS-445 Sound Pressure Meter

Model OS-445 is designed for measurement of the sound pressure in a free sound field.

Measurement use a 1/2inch condenser microphone.

#### Specifications

Frequency range : 20Hz to 40kHz

Measurement range : 55dB to 140dB (noise level 45dB or less)

Indicator : -5dB to +10dB

Response : FST, SLOW

Range changeover : 10dB step

Measurement microphone : OMC-57 + AP-1157A (accessory)



### OS-447 Sound Pressure Meter

Model OS-447 is a sound pressure meter that can switch frequency characteristics (flat, A-weighting).

Measurement use a 1/2inch back-electret condenser microphone.

#### Specifications

Frequency range : 20Hz to 20kHz

Frequency characteristics : flat, A-weighting

(Complies with JIS C1509 standards)

Measurement range : 45dB to 130dB

Indicator : -5 to +10dB

Range changeover : 10dB step

Measurement microphone : OMC-263 (accessory)



# Voltmeter

## OMR-107A True RMS Meter

Model OMR-107A indicates true RMS values within a frequency range from 2Hz to 50kHz.

### Specifications

Voltage range: 0.1Vrms to 300Vrms (8 ranges)

Input impedance : 100k $\Omega$

Response: FAST: 0.3secs

SLOW: 20secs

Crest factor: 5 or less

Output terminal: DC output full scale 2V

Output impedance: 600 $\Omega$



## OMR-107R AC Voltmeter

Model OMR-107R indicates true RMS values and peak values within a frequency range from 10Hz to 20kHz.

### Specifications

Voltage range: 0.1Vrms to 300Vrms (8 ranges)

Input impedance : 1M $\Omega$

Response: FAST: 0.3secs

SLOW: 20secs

Crest factor: 4 or less

Output terminal: AC/DC output full scale 2V

Output impedance: 600 $\Omega$  (AC/DC)



## OLM-833 Level Meter

Model OLM-833 can measure, display, and judge the signal level of audio signals.

### Specifications

Measurement range: 2range

Low -100dB to -40dB

High -50dB to -10db

Response: 0.1sec, 1sec and 10sec

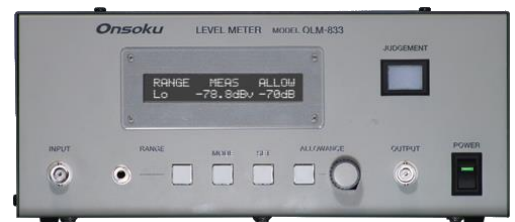
Filter type: 20Hz to 20kHz BPF -12dB/oct

A-weighting (complies with JIS C1509 standard)

Linear

Input impedance: 100k $\Omega$

Allowance: -100dB to +10dB (0.1dB step)



# Speaker Power Amplifier Microphone Preamplifier

## OPA-460 Power Amplifier

Model OPA-460 provides high-power output into a low impedance speaker. It delivers 150W into a load of 1  $\Omega$  to 8  $\Omega$ .

An output short-circuit protector protects the output circuit from accidental shorting. The output circuit is automatically reset from short-circuit detection after about 1 sec.

### Specifications

Maximum output power: 150W

Load impedance: 1  $\Omega$ , 2  $\Omega$ , 4  $\Omega$ , 8  $\Omega$   
(selection according to load)

Gain: 27dB

Frequency range: 10Hz to 20kHz



## OAT-594 Condenser microphone amplifier

Model OAT-594 is a condenser microphone preamplifier.

Both 1/2inch, 1/4inch and 1inch condenser microphones and 1/2inch back-electret condenser microphones can be used internal switching.

### Specifications

Gain:  $\pm 6$ dB

Frequency range: 20Hz to 100kHz

Output: 2output (BNC receptacle)

Output impedance: 75 $\Omega$

Microphone Polarization voltage: 200V

Preamplifier circuit voltage: 28V (condenser microphone)  
15V (back-electret condenser microphone)  
Internal switching (factory setting)



### Power supply

Our product has become the power supply of fixed voltage except for some products. Please choose from among AC100V, 110V, 120V, 200V, 220V, 240V at the time of the order.

Change the power supply voltage is also possible at a later date.

### We will undertake custom product

System products that combine several standard specification product, manufacturing of custom products met of the user's use condition is also possible. Please contact us.

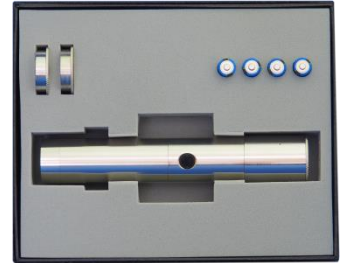
# Pistonphone / Coupler / Microphone

## TYPE2124A Pistonphone

TYPE2124A is a standard sound source, which emits 124dB SPL pure sine tone at 250Hz for calibration of condenser microphone. This is used for precise calibration of condenser microphone provided with 1inch, 1/2inch and 1/4inch.

### Specifications

Calibration level : 124dB SPL (sound pressure level)  
Frequency : 250Hz  
Microphone adapters : 1/2inch (accessory)  
1/4inch (accessory)  
1inch (optional accessory)  
Power source : 4pieces of AA size batteries (LR6)

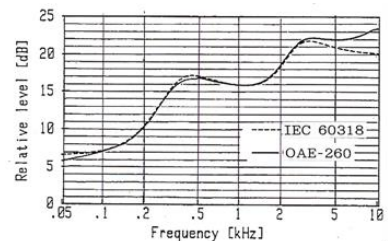
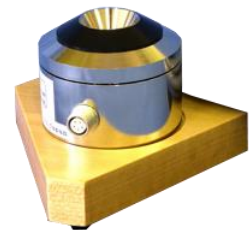


## OAE-260 Artificial ear

Model OAE-260 is a 3cavity coupler (artificial ear) that complies with the IEC60318-1 (IEC60318) standard, and simulates the acoustic impedance of the human ear. It has a wide frequency range and is used for calibrating Telephones, earphone and headphone and for measuring frequency characteristics. The compatible microphone uses a 1/2inch sound pressure type condenser microphone (Model OMC-58, sold separately). The preamplifier is built-in.

### Specifications

Applicable standard : IEC60318-1  
Frequency range : 50Hz to 10kHz  
Compatible microphone : Model OMC-58 (optional)

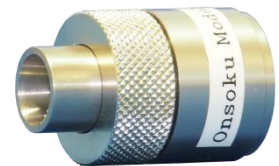


## OAE-262 Ear simulator coupler

Model OAE-262 conforms to IEC60318-4 (IEC60711) and is used to measure the sound pressure and frequency characteristics of insertable earphones. Since it also simulates the characteristics of the ear canal and eardrum, it can be measured in the state closest to that when worn on the human body. Built-in sound pressure type 1/2inch condenser microphone Model OMC-58, it is individually calibrated by the combination of coupler-microphone. Model OAE-262 is used with the optional preamplifier Model AP-1263 or Model OAE-260P and the acoustic impedance is very similar to the human ear.

### Specifications

Applicable standard : IEC60318-4  
Frequency range : 100Hz to 10kHz



## OT-1003 dedicated dummy head

The dummy head imitates the human head and auricle, and has a built-in microphone inside the auricle.

You can easily measure frequency characteristics by setting earphone and headphone for human use. When used in combination with the audio tester Model OT-1003, the frequency characteristics of high resolution earphone and high resolution headphone can be easily measured and judged. (Compliant with RC8140B-1)

### Specifications

Applicable standard : IEC60318-4  
Frequency range : 20Hz to 100kHz

Enlarged of pinna part



# Standard Microphone

- Condenser microphones are designed for precision measurements in the ultra-low frequency, Audio frequency and ultrasonic frequency ranges and maintain long term stability.
- These models complies with the ANSI S1.12-1967 standard.

Model name	OMC-67	OMC-68	OMC-257	OMC-258
Diameter	1 1/2 inch	1 inch	1/2 inch	1/2 inch
Pressure sensitivity (0dB = 1V / Pa)	-26dB	-28dB	-26dB	-28dB
Frequency response characteristic	Free field	Pressure field	Free field	Pressure field
Frequency response	10Hz to 20kHz	10Hz to 10kHz	10Hz to 20kHz	10Hz to 10kHz
Maximum sound pressure level	150dB		145dB	
Polarization voltage	200V			
Operating temperature	-10°C to +50°C 90% RH (no concentration)			
Temperature characteristic	±0.007 dB/°C (-10 to +50°C )			
change in characteristics with time	±0.2dB (within 5 years at 20°C)			
Pre amplifier type	AP-1158		AP-1157A	

Model name	OMC-57	OMC-58	OMC-97	OMC-98
Diameter	1/2 inch	1/2 inch	1/4 inch	1/4 inch
Pressure sensitivity (0dB = 1V / Pa)	-36dB	-38dB	-49dB	-58dB
Frequency response characteristic	Free field	Pressure field	Free field	Pressure field
Frequency response	10Hz to 40kHz	10Hz to 20kHz	20Hz to 100kHz	20Hz to 70kHz
Maximum sound pressure level	160dB		164dB	
Polarization voltage	200V			
Operating temperature	-10°C to +50°C 90% RH (no concentration)			
Temperature characteristic	±0.007 dB/°C (-10 to +50°C )			
change in characteristics with time	±0.2dB (within 5 years at 20°C)			
Pre amplifier type	AP-1157A		AP-1159	

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