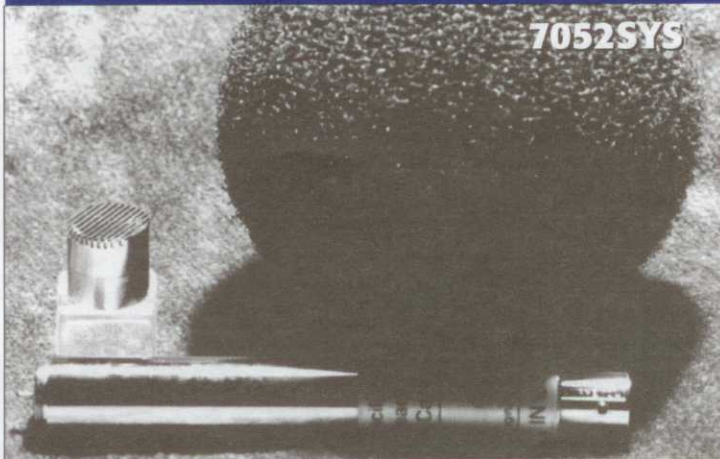


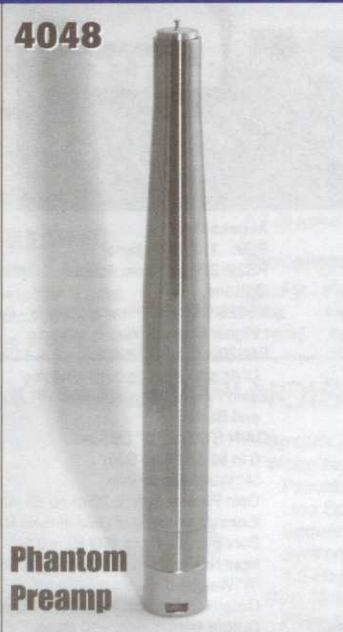


# Pacific, Inc.

*Precision Microphones and Systems for the End User and OEM*

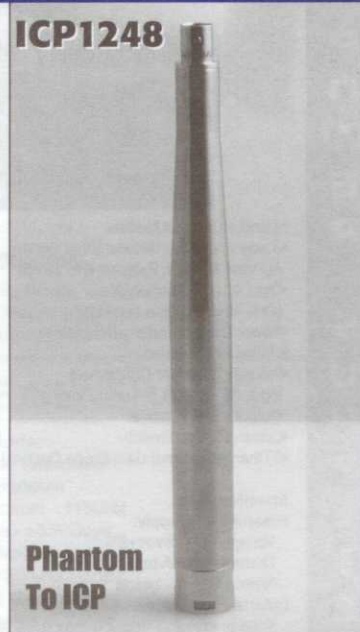


**7052SYS**



**4048**

**Phantom Preamp**



**ICP1248**

**Phantom To ICP**



**PS9200KIT**

**PDA & Laptop Displays**  
Wired  
Wireless

**SLARM™**  
**SLARMNet™**

**Sound Level Alarm Monitor**



**S17KIT**

Includes: **PS9200** - 2 Channel Power Supply, **4012** - 1/2 Inch Preamp and Cable, **PS9** (110 Vac) or **PS29** (220 Vac) adaptor, **WS1** 3 Inch Windscreen, choice of Type 1 1/2 Inch Mic: •**7012** - FF - 40 kHz - 15 mV/Pa •**7013** - Pr - 20 kHz - 12 mV/Pa •**7046** - FF - 20 kHz-50 mV/Pa •**7047** - Pr - 10 kHz - 40 mV/Pa ...and...  
**SC1** - Fitted Storage Case (shown) **Options:** "G" Gain Stage, **SC2** Locking Case, 511 E Calibrator, 1 or 1/4 Inch Mics and Preamps, **DM2-22** and more...  
**New PS9200Kit-1/4** Microphone System, **PS9200Kit-1** 1 Inch Microphone System.

**S17** Simple Intensity™ Probe, rugged side by side configuration per IEC 1043, up to 100 mm Mic to Mic Spacing, 18 Inch Extension w/Tripod Mount. Your choice of phased Matched 1/2 Inch Mic Pair, **7012 PM** (15mv) or **7046I** (50mV). **PS9200** - 2 Channel Power Supply, **4012** (2)- 1/2 Inch Preamps and Cables, **PS9** (110 Vac) or **PS29** (220 Vac) adaptor, **SC1** - Fitted Storage Case (shown) **Options:** "G" Gain Stage, **SC2** Locking Case, 511 E Calibrator, **DM2-22**. **Optional 7016PM** 1/4 Inch Mics, requires AD0016x2. **New S17BNC** ICP Sound Intensity Survey Probe.

## ACOustics Begins with ACO™

[www.acopacific.com](http://www.acopacific.com)



# ◆ ACOUSTICAL INTERFACE™ SYSTEM ◆

POWER SUPPLIES

## PS9200

Precision Microphone Power Supply Family



- 2 and 4 Channel Models
- 3 way operation, Internal 9Vdc Battery AC Wall Adapter, External 6 to 16Vdc
- Over 40 hours battery life (One 4012 Preamp and Mic)
- Power On/Low Battery Indicator
- Output AC Coupled
- Industry Standard Connectors Input - 5 pin XLR or Lemo 7 pin Output - BNC Coaxial
- Locking Toggle Switch
- 2 Channel Internal Gain Stage Optional

**Specifications:**

**Preamplifier Supply:**

- Voltage - (+) 28Vdc±5%
- Current - 10 mA total
- Noise - 0.001% typical

**Polarization Supply:**

- Voltage - (+) 200 Vdc±2% max 0.5% typical
- Current - Limited by 11 Meg Ohm source
- Noise - 0.0001% typical

**Switching Frequency - >70kHz typical**

**Signal Decoupling Capacitor: 10uF Tantalum**

**Power Requirements - DC:**

- Voltage Input 4.5 to 18Vdc
- Operational Range 5.5 to 16Vdc
- Current @ 9 Vdc - One channel - 4 mA typical
- Low Battery Indication: 6.3 Vdc typical
- Battery - 9Vdc Alkaline (NEDA 1604A)

**Accessories:**

- PS9: 110VAC Adapter
- PS29: 220VAC Euro Adapter
- Options:
- PS9250: 50 Vdc Preamp Voltage - Permits Higher Output Voltage - 40Vpp
- PS9200: (L7 & PS9204L7) - 2 & 4 Channel Units with 7 pin Lemo Connector
- Lemo Pinout Compatible with HP, Norsonics and B&K

**GAIN STAGE: "G" Options**

- 0 to 60 dB Fixed Gain
- "A" Weighting w/Gain
- Gain Factory Select, 20 or 40 dB standard
- External switching of Gain or Gain Modes (Opt.)
- Bandwidth: 2 Hz to 100kHz ± 0.5dB
- Input Noise: Broadband 2 Hz to 100kHz <10uV "A" Weighted <3uV
- Output Capacitor: 100uf (1.5uFd option)
- Output Impedance: <10 ohms
- Drive Capability: 3000pf 1 V p-p @ 100kHz
- Maximum Output: 3.3Vrms @ 12Vdc
- Input Impedance: >50 Kilohms



## 4012 1/2 Inch Microphone Preamplifier



- Detachable cable provides: Ease of installation, Storage of Mic and Preamp, Ease of repair
- Low power • Wide Frequency Response
- High Input Impedance • Low noise

**Specifications:**

- Microphone Connection: 11.7mm - 60 UNS Thread
- Power: 28 Vdc @ 700 uA typical
- Insertion Loss: <0.2 dB typical @ 22 pF (DM2-22)
- Output Voltage: 7Vrms @ 1 kHz (28 Vdc)

Frequency Response: 2Hz to 200kHz ± 0.5db typical  
Noise @ 22pF: "A" weighted - 1.5 uV typical, Linear 20Hz to 20Hz - 3uV typical, Input Impedance: >25GΩ || 0.1 pF typical

**Options:**

- XLR & Lemo Versions: 1 inch Preamplifier - 4022 (4012+AD0122)
- 1/4 Inch Preamplifier - 4016 (4012+AD0016)

**Accessories:**

- CA4012-0 - Unterminated Cable - 2 meters
- CA4012-5 - 5 Pin XLR Cable - 2 meters - Supplied w/4012
- CA4012-L7 - Lemo HP, Norsonic, B&K Pinout - Supplied w/4012L7
- Custom Cable Preamp CA4012-X-Y X=Connector Lemo 7 pin (-L7) XLR 5 pin (-5) Y=Length in Ft.
- AD0122 - 1 to 1/2 inch adapter
- AD0016 - 1/4 to 1/2 inch adapter
- DM2-XX-Dummy Microphone

## 4048 ACOTRON™ 1/2 Inch Phantom Preamp



- Input Freq. Response @ 22pF: 5Hz to 200 kHz (-2 dB)
- Loss @ 22 pF: 1.5 dB typ.
- Noise Floor @ 22 pF: 2uV typ.
- Output Performance 60 to 18 V Phantom: (12Vdc reduced performance)
- 1 kHz - 14 Vpp (5Vrms) into a 5000pF load <1% THD
- Power Supply Sensitivity: <0.1 dB
- Mic Mounting Thread: 11.7 mm 60UNS2
- Power/Output Connector: XLR 3 pin -male

**7052PH and MK224PH System Packages**  
Includes: Mic; 4048 Preamp and WS1 Windscreen

**Options**

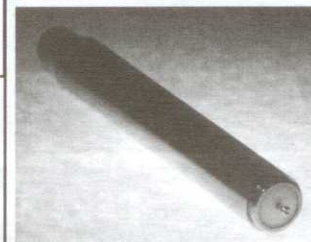
- Windscreens: WS7, WS1-80T and WS7-80T (treated)
- 511E SPL Calibrator
- Custom High SPL Options - to >175 dB SPL (7017 mic)

## 4212 ACOTRON™

CCLD\* Powered (2-20 mA)  
PCB ICP™ and B&K DeltaTron® compatible

New 7052SYS MK224SYS  
(mic + 4212) Combos

ICP Adapters:  
PSIEPE4 & ICP1248



**Specifications:**

- Frequency Response: @ 22pF
- 100 Hz to >100 kHz less than ± 0.1 dB 50 m dB typ.
- 30 Hz to >100 kHz less than ± 0.2 dB typical
- Lower Limits -2 dB 10 Hz, -3 dB 8 Hz typ.

**Loss (Attenuation):**

- re: 1 kHz and 250 Hz (-)1.4 dB typical
- Change for 2 mA to 20 mA CCLD adjustment 0.1 dB typical
- Change for 15-30 Vdc CCLD supply change 0.05 dB typical

**Input Impedance: 1GΩ || 0.6 pF typical**

- Noise: @ 22pF
- 1.5 uV "A" weighted, 8 uV 20 kHz typical

**Output Performance:** 1% THD (18-30 Vdc CCLD)  
4 mA/20 kHz - 14 Vpp - 5 nF Load typical  
20 mA/20 kHz - 14 Vpp - 50 nF Load typical

THD: @ 100mV rms:  
20 kHz <-80 dB, 1 kHz -80 dB Typ.

**Output Connector:** BNC Socket (Female)

**Power:** 2-20 mA, 18 to 30 Vdc recommended

**Microphone Connection:** 11.7mm - 60 UNS Thread

**Temperature:** Operating -20 to 60°C

**Option:** 4212RA & RAS Right Angle Preamps

\*Constant Current Line Drive

## THE SLARM™ SOLUTION



### Sound Level Alarms Wired and Wireless w/SLARMNet™

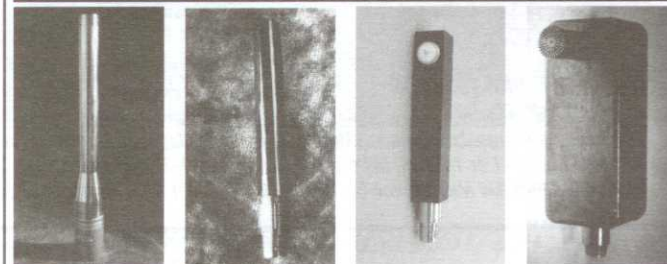
The SLARM™ family of SPL alarms feature:

- ◆ Wireless Alarm, Display, History and control
- ◆ Password Protected Security Layers
- ◆ Programmable: dB SPL Thresholds, Leq Periods, F/S response
- ◆ A, C and Z (Lin) Weighting - Selections, and Profiles
- ◆ Real-time Clock Calendar
- ◆ Multiple Profiles and History
- ◆ True RMS detection with >100 dB Dynamic range
- ◆ 20 to 120 dB SPL, 40 to 140 dB SPL (Selectable ranges to 170 dB)
- ◆ 7052S Type 1.5"™ Titanium Measurement Mic (std)
- ◆ MK224 Type 1 (opt)
- ◆ Removable Mic/Preamp - to >300 feet
- ◆ Mic Calibration with 511E (opt)
- ◆ Optically Isolated Signal (Alarm) closures (50 V/50 mAcd)
- ◆ WS1 Windscreen standard
- ◆ WS1-80T (treated- opt)
- ◆ 12-24 Vdc Power
- ◆ SA Series Control Accessories (Contact factory for SLARM™ and Accessory pricing)

APPLICATIONS: Industrial • Machine/ Plant Noise • Fault Detection • Environmental • Pass By Noise • Community Compliance • Amphitheatres • Auditorium • Stage • Monitor Rooms • Equipment Yards • Construction Sites

ACOUSTALARM™

## Specialty Preamps



40X12 (XLR)

40L12 (Lemo)

4212RAS

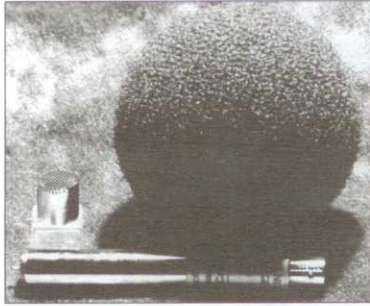
4012RA

4012RAS & 4212RA AVAILABLE - NOT SHOWN



# ◆ ACOUSTICAL INTERFACE™ SYSTEM ◆

## 7052SYS & 7052PH Type 1.5™ Measurement Microphone Systems



7052S FF Capsule  
WS1 Windscreen  
4212 ACOTRON™  
ICP™ Preamp or  
4048 Phantom  
Preamp

Also Available:  
MK224SYS  
MK224PH  
PSIEPE4  
ICP1248  
WS1-80T

The 7052SYS Type 1.5™ measurement microphone system offers a cost effective options to acoustics measurements. Compatible with ACOTRON™, IEPE, CCLD, PCB ICP™, and B&K Deltatron™ equipment. The 7052SYS provides >20 kHz response, <20 dBA noise floor, with 20 mV/Pa sensitivity (<14dBA with the MK224). The WS1 3" Windscreen rounds out the package. The 7052PH / MK224PH for Phantom Powered Systems

- LOW COST
- RUGGED SIDE BY SIDE CONFIGURATION-PER IEC 1043
- 18 INCH EXTENSION • TRIPOD MOUNTING
- 12.5 MM TO 100 MM MICROPHONES SPACING
- USES STANDARD ACO PACIFIC 4012 PREAMPS
- COMPATIBLE WITH PS9200 POWER SUPPLY
- DETENT DESIGN - NO SPACERS TO LOSE

SI7KIT AVAILABLE FOR ADDITIONAL SAVINGS  
INCLUDES: 1/2 INCH MATCHED PAIR, 2-4012 PREAMPS, W/ CABLE  
PS9200, AC ADAPTER AND SC1 FITTED STORAGE CASE & SI7  
NEW - SI7BNC FOR USE WITH 4212 PREAMPS AND 7052 CAPSULES  
NEW - SI7BNCYS- ICP SI SURVEY SYSTEM

### PHASE MATCHED PAIRS (SI7 KIT)

#### Matching Specifications:

Phase - 31.5 Hz to 1 kHz less than 0.2 deg.  
Less than 0.05 degrees typical @ 1 kHz  
Less than 1.0 degree typical @ 5 kHz

## SI7 Sound Intensity Probe "Simple Intensity"



Amplitude Matching:  
0.5 dB Hz to 12.5 kHz  
0.3 dB typical

#### Microphone Selection:

7012PM - Field to 40 kHz, 15 mV/Pa  
7046I - Free Field to 20 kHz, 50 mV/Pa  
7016PM - Free Field to 100 kHz, 3 mV/Pa

## EXTREMELY RANDOM™ NOISE GENERATOR

#### Application:

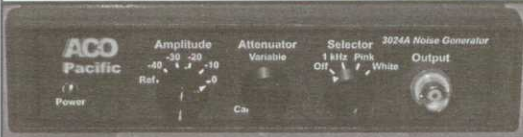
Signal Source for:  
Intensity Calibrators  
Reverberation Testing  
Vibration Applications  
Electronic Applications  
Psycho-acoustics

#### Features:

Pink and White Noise  
1 kHz Sinewave  
Step/Variable Attenuator to -52dB  
Crystal Controlled DDS  
Direct Speaker Drive  
Portable-Battery and AC Power  
2 BNC Outputs

#### Specifications:

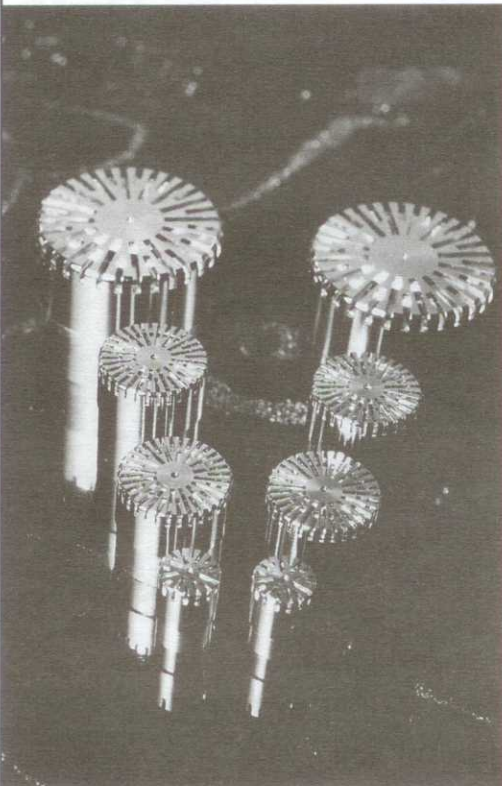
White Noise Generator  
Pseudo Random  
Line Spectrum - 119uHz  
Sequence - >6.5 Days  
Symmetrical Gaussian  
1.6 Hz to 39 kHz (-3dB)  
Pink Noise Generator  
Filter- 6 poles, 5 Zeros  
Slope - 3dB/Oct +/- .25dB  
Distortion -35dB @ 1 Vrms  
(.775Vrms, OdBm Optional)  
Power- 9V Alkaline (LR6/1604A) 2 each  
AC-12 Vac @ 500mA  
PS12-(110Vac) or PS22-(220Vac) Supplied



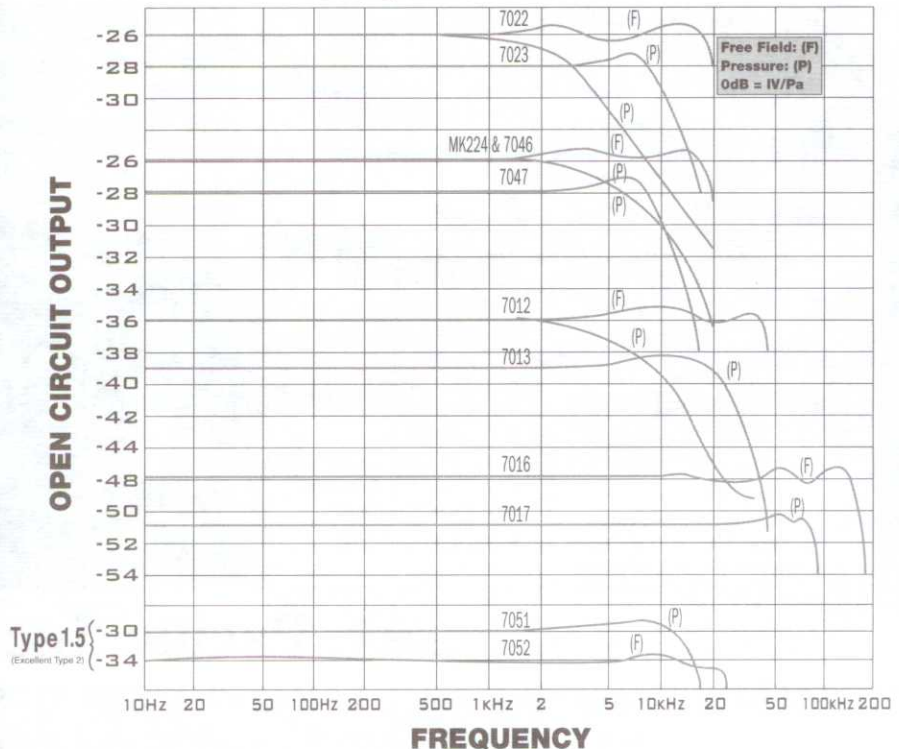
3025 White, Pink & 1kHz  
Precision Noise Generator

**NEW**

## The "Alternative" Family



### FREQUENCY RESPONSE



SOUND INTENSITY

NOISE GENERATOR

FREQUENCY RESPONSE



# Specifications for The "Alternative" Family of Products

TYPE 1										TYPE 1.5™ (Excellent Type 2)		
ACO Pacific Model No.	7022	7023	7012	7013	7046	7047	MK224	7016	7017	7051	7052	
Nominal Diameter	1 Inch		← 1/2 Inch →				1/4 Inch		1/2 Inch			
Response Characteristic	Free Field 0°	Pressure	Free Field 0°	Pressure	Free Field 0°	Pressure	Free Field 0°	Free Field 0°	Pressure	Pressure	Free Field 0°	
<b>OPEN CIRCUIT SPECIFICATIONS</b>												
Frequency Response ± 2dB	2Hz to 20kHz	2Hz to 10kHz	2Hz to 40kHz	2Hz to 20kHz	2Hz to 20kHz	2Hz to 10kHz	8Hz to 18kHz	5Hz to 120kHz	5Hz to 70kHz	3Hz to 12.5kHz	3Hz to 20kHz	
Sensitivity dB re: 1V/Pa (mv/Pa)	-26dB (50)		-36dB (15)	-38dB (12.5)	-26dB (50)		-28dB (40)	-26dB (50)	-49dB (3)	-58dB (1)	-29dB (35)	-34dB (20)
Dynamic Range (3% THD) Typ.	8dBA-150dB		18dBA-160dB		12dBA-145dB		14dBA-145dB	35dBA-164dB	45dBA-175dB	18dBA-148dB	20dBA-148dB	
Nom. Polarization Cartridge Cap.	60pF		18pF		20pF		18pF	6.5pF		18pF	18pF	
Polarization Voltage	← 200 Vdc →						0 Vdc	200 Vdc		0 Vdc	0 Vdc	
Temperature Coefficient -10°C to +50°C	+ 0.007dB/C°				(-30°C to +80°C < +0.25dB)				0.01 dB/C°			
Influence of Humidity 55°C - 95%	<±0.1dB (non condensing)											
Long Term Stability 20°	>900 years/dB						>250 years/dB	>900 years/dB		>250 years/dB		
<b>MECHANICAL DIMENSIONS</b>												
Height of Cartridge with grid	18.5 mm		12.7 mm		16.7 mm			10.5 mm		13 mm		
Without grid	17.0 mm		11.5 mm		15.5 mm		15.5 mm	9.0 mm		12.0 mm		
Diameter of Cartridge with grid	23.77 mm		← 13.2 mm →					7.0 mm		13.2 mm		
Without grid	23.77 mm		← 12.7 mm →					6.35 mm		12.7 mm		
Thread for Grid or Coupler	23.11 mm 60UNS2		← 12.7 mm 60UNS2 →					6.36 mm 60UNS2		12.7 mm 60UNS2		
Thread for Preamp Mounting	23.11 mm 60UNS2		← 12.7 mm 60UNS2 →					5.7 mm 60UNS2		12.7 mm 60UNS2		
Equivalent Bruel and Kjaer Type	4145	4144	4133/4191	4134/4192	4165	4166	4155/4189	4135	4136	-	-	
Companion Preamplifier	4022 (4012 + AD0122)		4012				4012E, 4212, 4048	4016 (4012 + AD0016) <sup>4116</sup>		4012E, 4212, 4048		

## ◆ ACCESSORIES ◆

### 511E & 511ES124 Sound Level Calibrator

- **1000 Hz:**  
0 dB Reference Point for:  
A,B,C,D, Weighting
- **2 Output Levels:** Permits  
Range testing  
94 dB SPL = 1Pa  
104 dB SPL (ES124-124dB SPL)
- **Accuracy: Meets IEC942**  
±0.3 dB @ 23C - Type 1L  
±0.5 dB 0 to 50C
- **Power 9Vdc:** (NEDA 1604A)
- **Mic Diameter:** up to 1 1/8 Inches  
1/2 inch adapter Q3\* Included
- **Adapters:**  
Q1 - 1 inch    Q2 - 20mm  
Q3\* 1/2 inch    Q7 1/4 inch  
\*Supplied with 511E
- **511ES124**  
94/124 dB SPL @ 1 kHz

**124dB SPL**

### 4012 Accessories:

- AD0122 - 1 inch Mic to 1/2 inch Preamp Adapter
- AD0016 - 1/4 inch Mic to 1/2 inch Preamp Adapter
- DM2-22 - 1/2 inch Dummy Mic/BNC -22pF input
- DM2-1K-1000pF - Values to 0.1uF - Special Order
- MATT-XX Mic. Attenuator (Contact factory)

### Windscreens:

- WS1 - For 1/2 inch Microphones - 3" diameter
- WS7 - For 1/2 inch Microphones - 7" diameter

### Rain Resistant Windscreens:

- WS1-80T - For 1/2 inch Microphones - 3" diameter
- WS7-80T - For 1/2 inch Microphones - 7" diameter



DM2-22    AD0122

### IEPE/ICP™(PCB) ADAPTERS

#### ICP1248-Phantom

- ◆ XLR 3 Pin Male Connection conforms to Industry Standard Balanced Phantom Power Configurations.
- ◆ Operates from 18-48 Vdc 12Vdc w/reduced performance
- ◆ BNC Male Coaxial Cable Connection
- ◆ Supplies 3-4 mA Constant Current From Balanced Phantom Sources (Custom mA available)

**NEW**

#### PSIEPE4-PS9200

- ◆ Adapt your PS9200 to power your ACOTron™, ICP™ or CCLD devices.
- ◆ The PSIEPE4 supplies a low noise 4 mA constant current from the PS9200's 28Vdc.
- ◆ Now you can operate your microphone on one channel while you power an accelerometer.
- ◆ BNC Male Coaxial Cable Connection



### WS7-80T & WS1-80T



**Treated Windscreens**